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Date of Deposit: November 28, 2001

Attorney Docket No.: 15966-789 (Cura-289)





**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| APPLICANTS : | Padigaru et al. | | |
| SERIAL NUMBER : | 09/844,861 | EXAMINER : | Not Yet Assigned |
| FILING DATE : | April 27, 2001 | ART UNIT : | 1646 |
| FOR : | Novel Proteins and Nucleic Acids Encoding Same | | |

**BOX IDS**
Assistant Commissioner for Patents
Washington, D.C. 20231

30623
PATENT TRADEMARK OFFICE

**TRANSMITTAL LETTER**

Transmitted herewith for filing in the present application are the following documents:

1. Information Disclosure Statement (1 page), in duplicate;
2. Modified Form 1449/PTO (2 pages), in duplicate;
3. Copies of cited references C1-C30; and
4. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any additional fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No.15966-789 (Cura-289). A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

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Dated: November 28, 2001

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## INFORMATION DISCLOSURE STATEMENT

Applicants hereby make of record the documents listed below and on the attached modified Form PTO-1449 (submitted in duplicate) in the above-identified application, copies of which are submitted herewith. This Information Disclosure Statement is being been filed before the mailing date of a first Office Action on the merits in the above-identified case. Accordingly, no fee or certification is believed required. A copy of each of the references is enclosed unless otherwise indicated on the attached Form PTO-1449 (modified). Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311 Reference No. 15966-789 (Cura-289).

Respectfully submitted,

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Dated: November 28, 2001

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**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

| | |
|---|---|
| **Application Number** | 09/844,861 |
| **Filing Date** | 04/27/01 |
| **First Named Inventor** | Padigaru |
| Group Art Unit | 1646 |
| Examiner Name | Not Yet Assigned |
| Attorney Docket Number | 15966-789 (Cura-289) |

**U.S. PATENT DOCUMENTS**

| Exam Initials | Cite No. | U.S. Patent Document No. | Issue Date | Name of Patentee(s) or Applicant(s) | Class | Sub Class | Filing Date If Appropriate |
|---|---|---|---|---|---|---|---|
| | A1 | | | | | | |

**FOREIGN PATENT DOCUMENTS**

| Exam Initials | Cite No. | Foreign Patent Document Office | Number | Name of Patentee(s) or Applicant(s) | Date of Publication | Translation Yes | No |
|---|---|---|---|---|---|---|---|
| | B1 | | | | | | |

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

| Exam Initials | Cite No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
|---|---|---|
| | C1 | Asai, H. et al. (1996). "Genomic structure and transcription of a murine odorant receptor gene: differential initiation of transcription in the olfactory and testicular cells." *Biochem. and Biophys. Res. Comm.* 221: 240-247. |
| | C2 | Ben-Arie, N. et al. (1994). "Olfactory receptor gene cluster on human chromosome 17: possible duplication of an ancestral receptor repertoire." *Hum. Mol. Genet.* 3(2): 229-235. |
| | C3 | Bulger, M. et al. (1999). "Conservation of sequence and structure flanking the mouse and human beta-globin loci: the beta-globin genes are embedded within an array of odorant receptor genes." *Proc. Natl. Acad. Sci. U.S.A.* 96: 5129. SWALL (SPTR) Accession Number: **Q9WVD9** |
| | C4 | Bulger, M. et al. (1999). "Conservation of sequence and structure flanking the mouse and human beta-globin loci: the beta-globin genes are embedded within an array of odorant receptor genes." *Proc. Natl. Acad. Sci. U.S.A.* 96: 5129. GenBank Accession Number: **Q9Y5P1** |
| | C5 | Courtney, L. et al. (1999). Direct Submission. GenBank Accession Number: **O95013** |
| | C6 | Feingold, E.et al. (1999). "An olfactory receptor gene is located in the extended human beta- globin gene cluster and is expressed in erythroid cells." *Genomics* 61: 15. SWALL (SPTR) Accession Number: **Q9UKL2** |
| | C7 | Issel-Tarver, L. and Rine, J. (1996). "Organization and expression of canine olfactory receptor genes." *Proc. Natl. Acad. Sci. U.S.A.* 93(20): 10897-10902. GenBank Accession Number: **Q95156** |
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| | C9 | Issel-Tarver, L. and Rine, J. (1996). Direct Submission. GenBank Accession Number: **Q13607** |
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| | C11 | Krautwurst, D. et al. (1998). "Identification of ligands for olfactory receptors by functional expression of a receptor library." *Cell* 95(7): 917-926. |
| | C12 | Lane, R. et al. (2000). "Genomic Analysis of Orthologous Mouse and Human olfactory receptor Loci Indicates Cluster Stability Yet Minimal Conservation Beyond the Coding Sequenc ." Dir ct Submission. SWALL (SPTR) Accession Number: **Q9EP67** |

| OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS | | |
|---|---|---|
| Exam Initials | Cite No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
| | C13 | Leibovici, M. et al. (1996). "Avian olfactory receptors: differentiation of olfactory neurons under normal and experimental conditions." *Dev. Biol.* 175: 118. SWALL (SPTR) Accession Number: **Q90808** |
| | C14 | Malnic, B. et al. (1999). "Combinatorial receptor codes for odors." *Cell* 96(5): 713-723. |
| | C15 | Malnic, B. et al. (1999). "Combinatorial receptor codes for odors." *Cell* 96: 713. SWALL (SPTR) Accession Number: **Q9WU89** |
| | C16 | Malnic, B. et al. (1999). "Combinatorial receptor codes for odors." *Cell* 96: 713. SWALL (SPTR) Accession Number: **Q9WU93** |
| | C17 | Malnic, B. et al. (1999). "Combinatorial receptor codes for odors." *Cell* 96(5): 713-723. GenBank Accession Number: **AF121979** |
| | C18 | "Olfactory Receptor 1; OLFR1." Online Mendelian Inheritance in Man (OMIM): Accession Number: **164342** (downloaded 11/12/01) |
| | C19 | Parmentier, M. et al. (1992). "Expression of members of the putative olfactory receptor gene family in mammalian germ cells." *Nature* 355(6359): 453-455. |
| | C20 | Rost, B. et al. (1996). "Topology prediction for helical transmembrane proteins at 86% accuracy." *Protein Sci* 5(8): 1704-1718. |
| | C21 | Rouquier, S. et al. (1999). "Sequence and chromosomal localization of the mouse ortholog of the human olfactory receptor gene 912-93." *Mamm. Genome* 10: 1172. SWALL (SPTR) Accession Number: **Q9QY00** |
| | C22 | Rouquier, S. et al. (1998). "A gene recently inactivated in human defines a new olfactory receptor family in mammals." *Hum Mol Genet* 7(9): 1337-1345. |
| | C23 | Smith, S. (1999). Direct Submission. SWALL (SPTR) Accession Number: **Q9Y3N9** |
| | C24 | Thomas, M. et al. (1996). "Chemoreceptors expressed in taste, olfactory and male reproductive tissues." *Gene* 178(1-2): 1-5. |
| | C25 | Tsuboi, A. et al. (1999). "Olfactory neurons expressing closely linked and homologous odorant receptor genes tend to project their axons to neighboring glomeruli on the olfactory bulb." *J. Neurosci.* 0: 0. SWALL (SPTR) Accession Number: **Q9R0K3** |
| | C26 | Tsuboi, A. et al. (1999). "Olfactory neurons expressing closely linked and homologous odorant receptor genes tend to project their axons to neighboring glomeruli on the olfactory bulb." *J. Neurosci.* 0: 0. SWALL (SPTR) Accession Number: **Q9R0K4** |
| | C27 | Vanderhaeghen, P. et al. (1997). "Specific repertoire of olfactory receptor genes in the male germ cells of several mammalian species." *Genomics* 39(3): 239-246. |
| | C28 | Walensky, L. et al. (1998). "Two novel odorant receptor families expressed in spermatids undergo 5'-splicing." *J Biol Chem* 273(16): 9378-9387. |
| | C29 | Wu, T. et al. (1999). "Minimal-risk scoring matrices for sequence analysis." *J Comput Biol* 6(2): 219-235. (ABSTRACT ONLY) |
| | C30 | Xie, S. et al. (2000). "Characterization of a cluster comprising approximately 100 odorant receptor genes in mouse." *Mamm Genome* 11(12): 1070-1078. |

* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. _____, filed _____, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

| Examiner Signature | | Date Considered | |
|---|---|---|---|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.